MISSOURI BOTANICAL GARDEN BULLETIN

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lume XLV March, 1957 Number 2

Cover: Spraying the Garden elm trees.

Missouri Botanical Garden Bulletin

Vol. XLV MARCH, 1957 No. 2

THE GARDEN REPORT FOR 1956

HUGH C. CUTLER

DURING the past year the Garden has progressed in many directions, in spite of strict economies made necessary by rising costs. Plantings and displays have improved; the reorganization of the research facilities has advanced; the number of people using the Garden has increased. Although some repairs have been made, major renovating of greenhouses, buildings, pools, walks, and the heating and water systems has been postponed. To meet rising costs and to make repairs necessitated by depreciation, Garden operations have had to be reduced to the bare essentials. Over the years the Directors' reports have repeatedly stressed the need for funds to supplement the endowment left by Henry Shaw. Unlike most similar institutions, the Garden does not receive funds from city or state tax collections and it therefore needs aid if it is to continue as an outstanding institution. Following Dr. George T. Moore's retirement in February 1953, as Director, a position which he had held since 1913, Mr. John S. Lehmann, President of the Board of Trustees, acted as Director until Dr. Edgar Anderson was appointed to that office in April, 1954.

In 1956, Mr. Oscar Glaessner was appointed Business Manager and Secretary of the Board of Trustees. His understanding of methods and devotion to duties have improved our records and helped make possible many significant economies.

GARDEN

GREENHOUSES.

Plantings in all the display greenhouses were rearranged and the plants carefully labeled. Several truck loads of old plants were removed and many new ones were added. Large numbers of these new plants were acquired by Mr. Ladislaus Cutak (in 1956 Horticulturist in Charge of Conservatories, and now Greenhouse Superintendent) through gift or exchange. A carefully managed program of watering, fertilizing, cultivation, and spraying has kept the plants in good condition. In the Palm House, the Economic House and the Cactus House, the walks have been resurfaced with bricks. At the east end of the Citrus House a soft-drink vending machine was installed in a patio-like rest area where garden magazines donated by Friends of the Garden are available.

In the Palm House a representation of a tropical forest has been produced, with bromeliads and orchids growing from tree trunks and branches, and vine-clad palms extending high overhead. During the hot weather a striking display of Caladiums brightened the Economic House. The plantings

about the waterfall in the Aroid House were rearranged to create the effect of a tropical valley. For many years Mr. Cutak has been collecting all the known kinds of Philodendrons, and recently one of the pit-houses north of the Aroid House was opened to display what we consider to be the world's best collection of Philodendrons. In the pit-house, too, is a collection of Anthuriums, brought in from Gray Summit so that more people can see these showy tropical plants. Fog nozzles spray a mist which raises the humidity high enough to permit growing pitcher plants and many of the Gesneriads that need a moist atmosphere. Opening this pit-house which was formerly used for storing plants adds a new and unusual display house. Those who pass through it, leaving by the north door, are permitted to view the water-lily propagating tanks and watch the activities which go on in the propagation houses throughout the year. Water-lily varieties developed here by Mr. Pring, Superintendent, are now grown throughout the world.

The oldest greenhouse at the Garden and the only one remaining of those built during Henry Shaw's lifetime is the Linnean House. A gift of money from the St. Louis Garden Club, collected during its Spring Garden Tour in 1956, made it possible to initiate the long-needed restoration of this building. Some new Camellias have been planted and the ivy ground-cover and the fig-vine have been kept in such good condition that this is one of the most attractive greenhouses, even when the flowers are not in bloom. Now electric hedge clippers are used to prune the fig-vine and flood lights make it possible to have this house open for unusual evening displays.

The schedule of displays in the Floral Display House was about the same in 1956 as in previous years. The poinsettias remained until January and by adding Primroses and Cyclamens the show continued until the opening of the Orchid Show. Primroses, Cyclamens, Cinerarias, flowering bulbs, Genistas, and Kalanchoës were exhibited until the Easter Show, after which followed a display of Hydrangeas and other spring-flowering plants. During the summer, when the Display House became too warm for most flowering plants, an artistic arrangement of ornamental-leaved Caladiums occupied the floor. Included with the Chrysanthmum Show were two orchids, *Dendrobium Phalaenopsis*, the Baby Moth orchid, and *Cattleya Bowringiana*, not shown at the Garden before because of their susceptibility to smoke injury. They were arranged along the margins of the Chrysanthemum Show and in an area at the north end of the display house. The fact that these orchids held up well in spite of several days of foggy weather is a demonstration of how St. Louis has progressed in controlling the smoke and noxious gases which made it necessary to move the orchids to Gray Summit, back in 1926. Panels illustrating the different kinds of orchids and demonstrating the growth of orchids from seed, designed and painted by Mr. Paul Hale, a gifted gardener from Brighton, Illinois, supplemented the orchid exhibit. The unusual floral display arranged on the balcony of the Display House by the

members of the Chrysanthemum Society of St. Louis in 1955 attracted so much attention that the group was invited to make an even larger display in 1956. Baskets of chrysanthemums were hung in the Linnean House where they made a bright splash against the deep green of Camellias and climbing fig. Other chrysanthemum plants were scattered among the Camellias and about the pool. In the Shaw House a few cascade chrysanthemums were displayed on the mantels and in the entryway.

PLANTINGS.

Trees.—The Garden is world-famous for its research and its displays of both orchids and water-lilies. Now we are working to improve the outdoor plantings. The increased cost of labor just after most of our greenhouses were completed in 1916 meant a curtailment of outdoor activities to leave enough help to keep the greenhouses attractive. Also, in the years before the smoke-control program became effective, outside planting was discouraged in St. Louis because only the hardiest of trees and shrubs could survive. A count of the rings of the many weed-trees (mainly mulberry, tree of heaven, and silver maple) showed that most of them began to grow about 30 or 40 years ago. In the past year some 80 dead, dying, weedy or crowding trees were removed, and nearly as many new young trees have been planted. Oaks, gums, magnolias, conifers, dogwoods, bald-cypresses, hollies, several kinds of redbuds and new varieties of locusts have been planted according to the plans of Mr. John Noyes, former Landscape Architect to the Garden, or the plans of Mr. Emmet Layton, the Garden's present Landscape Architect.

The rare and beautiful old trees of the Garden are being fertilized, pruned and mulched. That this work has improved the trees is indicated by their resistance to ice and windstorms. For example, in 1955, a heavy wind meant a day of clearing fallen limbs and trees; now less than a quarter of the time is needed for such cleaning up.

Shrubs.—Throughout the Garden, shrubs have been pruned and fertilized, then mulched so heavily that little attention is now needed to keep out the weeds. A large number of old shrubs have been removed and replaced with nursery stock from the Arboretum or with plants acquired through gift or exchange. Fifteen bald-cypresses, a gift of the Forrest-Keeling Nursery, were planted about the water-lily pools. The dying Japanese Barberry about the main water-lily pool was replaced with a border of evergreen Julianae barberry. The plantings outside the main entrance to the Garden were redesigned by Mr. Layton and have proved to be very economical to maintain. In the nursery and ready to plant is a collection of new varieties of shrubs which, although the number of each kind is small, will give St. Louisans an opportunity to see how these plants grow in this climate.

Lawns.—The lawns at the Garden were fertilized in 1955 and again in 1956. They now have more bluegrass than they have had for many years. With careful management in the use of fertilizers and weed-killers, and with controlled mowing, we hope to continue the lawn improvement. Trial

plots have been laid out and samples of many kinds of bluegrass have been sown. A test of Bermuda U-3 in the circle in front of the Shaw House shows that, while this is an excellent grass for fast-growing and tough summer cover, it requires more frequent mowing than bluegrass and is not as attractive in winter. *Zoysia meyeri* plugs and sprigs gave tough summer lawn but did not give complete cover the first year; also, like Bermuda grass, it grew only during the warmest parts of the year.

Rose Garden.—With the help of members of the Rose Society and many other individuals, the Rose Garden has been kept stocked with new and old varieties of roses. The cool and moist early summer of 1956 resulted in one of the best shows of bloom we have had in recent years. Heavy mulches kept down weeds, conserved water, and reduced infections, such as black spot, which are spread by dirt splashed onto the leaves by rains and by watering.

Italian Garden.—The purchase of a used power generator made it easier to trim the hedges in the formal garden. This garden requires a large amount of hand labor as well as winter greenhouse space for growing the foliage plants which fill the beds. Photographs of the Italian Garden appeared in national magazines and in a Chamber of Commerce publication on St. Louis.

Economic Garden.—The south end of this garden has been cleaned and staked for the planting of a display collection of shrubs, mainly varieties of Forsythia and mock-orange.

Linnean Garden.—The Linnean Garden had its usual display of flowering plants although the wet spring made weeding difficult.

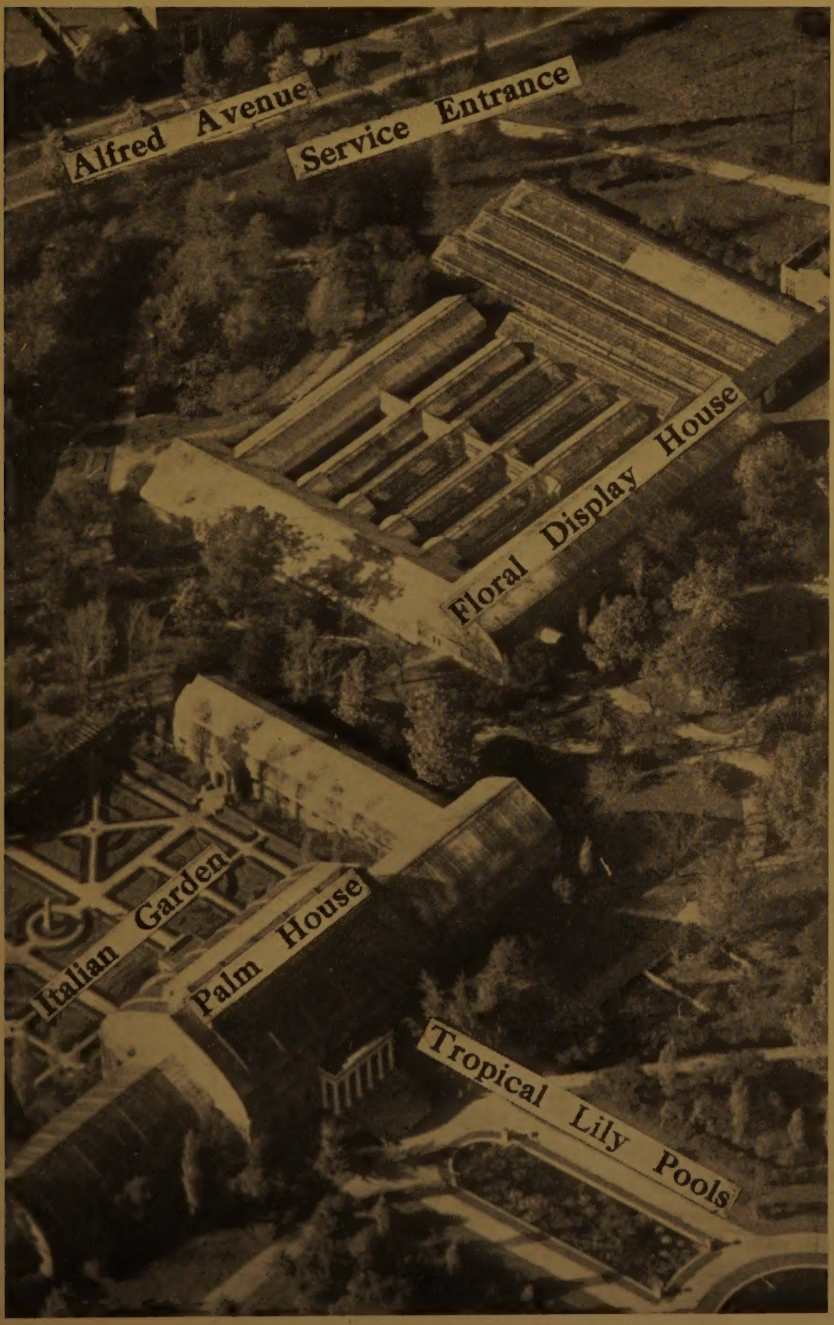
The Garden in General.—The extensive use of wood chips as mulch to conserve water and keep down weeds, the removal of narrow grass strips between beds of evergreen ground cover and the walks, the filling in of depressions in lawns so that mowers can cut evenly, and the use of herbicides to kill weeds, are only a few examples of methods being used to improve the appearance of the Garden and at the same time make it more economical to maintain.

Two iron benches bought with funds given in memory of Mrs. Susan M. Bryan were placed beside the Rose Garden.

MAINTENANCE.

Many Garden structures are in such poor condition that they should be replaced or completely reconstructed. Our small maintenance staff works diligently. For large repairs we have used outside help. It has been estimated that it will take at least $400,000 for needed repairs and replacements of structures and walks in the Garden.

Greenhouses.—Most of our greenhouses were built between 1912 and 1916, and they have been repaired, patched and reglazed several times in the past. In many places the woodwork is rotten, the iron rusted away. The Display House was strengthened and reglazed and painted in 1954 and 1955. The African House was painted and reglazed in 1955 and 1956. The north half of the Linnean House was completely repaired, reglazed, and repainted in 1956.



Shaw's Garden from the air: The Main Conservatories and the Service Eentrance

The woodwork in the Palm House and in the adjacent Fern and Economic Houses must be completely replaced. Only minor repairs and painting have been done in these houses. The Aroid House, Citrus House, and the propagation houses attached to the Floral Display House are in need of repairs, some of which have already been made to the ironwork. Loose and broken glass have been replaced. Planting directly in the soil in the greenhouses eliminated the need for starting plants in pots in the growing houses, and consequently several greenhouses were unused during the last two years.

Sheds and Garages.—Service sheds and garages have been cleaned and painted. A new arrangement of the tools and supplies, under the direction of Mr. Kenneth Smith, Engineer, and Mr. Louis Brenner, Grounds Superintendent, makes it possible to keep the supplies in better condition.

Residences.—Only minor repairs were made on the residences in the Garden.

Main Entrance.—At the main entrance, rooms were redecorated and new display windows built with the aid of a gift from the Beaumont Foundation. An Information Center has been established with a separate telephone line listed in the Telephone Book under "Missouri Botanical Garden Information Center". Most of the large number of requests for information are usually answered at once by Mr. Pring, Superintendent, who can draw on his more than fifty years of experience at the Garden. In his absence, replies are mailed out by post card or letter. The new display windows have featured a collection of herbs and publications prepared by the Herb Society, new garden books on special subjects, announcements of special tours, walks, Garden events and new house plants.

Administration Building.—The Administration Building was tuck-pointed and the window frames painted and caulked. This major job which had been put off many years for lack of funds was paid for with the proceeds of the 1955 "Christmas Adventure" which had been arranged by the Women's Committee.

Museum.—Mainly through the efforts of the Ladue Garden Club, the interior of the Museum has been cleaned and funds for painting it have been collected for work to be done this spring. The roof was strengthened, the skylight replaced with a section of roofing, and the plaster patched and painted with money from "Christmas Adventure".

Shaw House.—The Shaw House was restored in 1953, 1954, and 1955 with the help of a gift of $10,000 from Stix, Baer and Fuller and other gifts of money, furnishings and labor from many individuals. Mr. John Albury Bryan, architect for the National Park Service, gave generously of his time to supervise the work. Members of the Eighth District of the Federated Women's Clubs of Missouri have acted as hostesses and guides at the Shaw House since it opened, and as a result of their work, an increasing number of people visit the south end of the Garden. In 1956 the stucco on the house was repaired, the exterior waterproofed, and some floors repainted.

Several pieces of furniture, some of which had belonged to Mr. Shaw, were given to the house. It has been open daily from one to four except during the latter part of December, in January, and in February, when it was open only on weekends. It still houses the darkroom, several offices and workrooms, and some living quarters.

Heating System.—The heating system is in fair condition except for the transmission line from the Boiler House to the south end of the Garden which is in poor condition and must be replaced soon. Some of the pipes serving as heating coils in the various greenhouses were replaced. After making a study of the heating problems of the Shaw House and Administration Building a heat regulator was installed in the Shaw House.

ARBORETUM

At the Arboretum at Gray Summit only those features contributing directly to the enjoyment and instruction of the public are being maintained.

The dry weather of previous years had caused considerable damage to the trees, but this year, the Pinetum Lake filled with water and throughout the summer the Arboretum was quite green. The wildflower trails were frequented by a good number of visitors, especially during the month of April. During the dry fall we were fortunate not to have any serious fires. Mr. Frank Steinberg is now Superintendent of the Arboretum.

ORCHID DEPARTMENT.

Orchids are grown in the greenhouses at Gray Summit under the direction of Mr. Robert Gillespie. These greenhouses are open to the public daily from nine to four. Considerable progress has been made in adding new kinds and better-quality plants to the collections and in eliminating duplicates.

Research.—Control methods using pentachloronitrobenzene (an Olin Mathieson product known as Terrachlor) have been developed so that Oxalis and other weeds can be eradicated, saving hours of labor. Mr. Gillespie is investigating the environmental factors influencing flower initiation and development in several of the major genera of cultivated orchids. He has found that the flowering of many short-day orchid hybrids and of several of the Garden's long-day Cattleya hybrids can be controlled by light.

Cultural Techniques.—The use of new cultural methods—evaporative coolers, fog-line watering systems, automatic spray controls, adequate feeding and regulation of light intensity—has improved the quality of flowers and increased their production. Several mixtures of the bark of native Missouri cedar (*Juniperus virginiana*) and West Coast conifers (mainly *Abies concolor*) are being tested as potting and planting material for orchids. These bark mixtures are more economical than the fern fiber usually used and orchids can be planted more rapidly in them. We now have one bench of Cattleya hybrids and one of hybrid Cymbidiums growing in bark with subirrigation.

In an attempt to find a more satisfactory method of shading the orchid greenhouses, one half of the orchid seedling house was covered on the in-

side with polyethylene plastic film to reduce and diffuse the light. The plants under the plastic developed normally and the trial is being continued.

Plant Breeding.—Many of the rare and unusual orchids are being tried as parents of new types of hybrids which will be useful for our displays. Our extensive collection of orchid species represents a large untapped source of material for use in hybridization.

New Plants.—During 1956 the Garden acquired 296 orchid plants. Particularly noteworthy were the following:

17 Cattleya and Laelio-Cattleya hybrids, most of them award plants, donated by Mr. Alfred Proebstle of Brazoria, Texas.

10 fine hybrid cymbidiums, a gift of Longwood Gardens.

64 recently collected rare Ecuadorian orchids donated by Mr. José Strobel of Cuenca, Ecuador.

22 unusual orchid species received in an exchange with the Dublin Botanic Garden, Dublin, Ireland.

RESEARCH ACTIVITIES AT THE GARDEN

Many of the research activities closely related to the floral display and other public functions of the Garden have been mentioned earlier. Mr. Cutak's plantings of succulents and house plants, Mr. Gillespie's research on orchid growing methods, Dr. Meyer's trials of plants from Korea, Turkey, and Japan, Mr. Pring's studies on water-lilies and orchids, and Mr. Brenner's studies and practical trials of lawn grasses and food and cover plants for birds are research projects which are easy to relate to the parts of the Garden which everyone sees. But there are many other research activities which are not directly connected to the display gardens. Increasing numbers of these activities are supported by special grants and gifts from government agencies, foundations, industries and individuals. As provided in Mr. Shaw's will, much of the Garden research and teaching is closely tied up with Washington University; and many of the Garden's scientific staff have dual appointments.

A recent summary of the research activities at the Garden showed a wide range of projects completed in the last year or still under way. Some of the reports of this research have been published in the Garden's scientific quarterly, the *Annals of the Missouri Botanical Garden*; but an even larger number of reports have been published in other similar journals or presented as papers before scientific societies. The amount of work which is produced is great in comparison with the size of our staff and especially in view of the fact that there is little money available for the materials and assistants to carry out research.

One of the most important new activities connected with research at the Garden is the Annual Systematics Symposium, a discussion of the problems of the scientific classification of plants and animals. In 1956 at its third meeting, the Symposium was attended by 137 biologists. For the past two years these meetings have been supported by a grant from the National Science Foundation. With this financial aid, Dr. Tryon and the Herbarium Committee have been able

to arrange programs which attract outstanding plant and animal taxonomists and lead to stimulating and profitable discussions of problems common to both groups.

A LIST OF RESEARCH FIELDS OF STAFF MEMBERS

Dr. Edgar Anderson. Origin and evolution of plants.

Dr. Hugh Cutler. Origin and history of cultivated plants.

Dr. Henry N. Andrews. Fossil plants, especially the origins of fern-like and early seed plants.

Mr. Louis G. Brenner. Feed and cover plants for birds; lawn grasses.

Mr. Ladislaus Cutak. Taxonomy and culture of succulents and Philodendrons.

Dr. Carroll W. Dodge. Lichens and certain fungi.

Dr. John D. Dwyer. Taxonomy of certain legumes.

Mr. Robert J. Gillespie. Genetics and culture of orchids.

Dr. Frederick G. Meyer. Taxonomy of Valeriana; studies of certain cultivated plants.

Dr. Viktor Muehlenbachs. Flora of St. Louis.

Mr. George H. Pring. Water-lilies and orchids.

Dr. Julian A. Steyermark. Flora of Missouri.

Dr. Alice F. Tryon. The classification of the fern genus, Pellaea, and of medicinal and culinary herbs, especially geraniums and mints.

Dr. Rolla Tryon, Jr. Ferns of Peru.

Dr. George B. Van Schaack. Grasses.

Dr. Robert E. Woodson, Jr. Flora of Panama, studies in the Asclepiadaceae, and Apocynaceae, especially on Rauwolfia.

LIBRARY

Recently, extra effort has been devoted in the library to the serious problem of overcrowding. With rooms full of shelving and shelves full of books the only possible relief, as pointed out in previous years, was to weed out material without botanical interest, or marginal material easily accessible in other libraries in the city. Some of this material was transferred to the library of Washington University, partly as a gift, partly by sale. Much of it was sold elsewhere for an amount substantial enough to support the library program of acquiring new books, filling in journal sets and binding volumes. With the shelves relieved of unneeded publications enough rearrangement was possible to provide more comfortable reading quarters. The 'front' reading room can now be refinished and, with a few new chairs, it will be an attractive place to read and study.

The exchange program of the library continues to bring in a steady flow of several hundred botanical journals from all over the world. The library is now a member of the United States Book Exchange, a non-profit organization devoted to exchanging duplicate books and periodicals between member libraries of all countries. For very small fees the library has obtained missing journals and important books out of print or expensive to purchase.

Late in the year both of the assistant librarians, Miss Edna Mepham and Miss Ida Kohl, resigned their positions.

It had not been possible by the end of the year to find suitable replacements for these two employees of long standing.

HERBARIUM

The Herbarium carried on its usual duties of loaning, borrowing, accessioning and inserting. The principal figures for herbarium activity in 1956 follow:

Specimens inserted	6,987
Specimens accessioned for future mounting	4,394
Specimens sent out in exchange (to 5 institutions)	1,190
Specimens loaned (to 19 institutions, 2 foreign)	5,079
Specimens borrowed (15 institutions, 9 foreign)	4,737

The position of herbarium assistant was held by Mr. George Eiten of New York during the early part of the year and by Dr. Alfredo Cocucci of Cordoba, Argentina, the remainder of the year.

A major change in herbarium policy resulted from the decision to discontinue the mycological (fungus) section. Mycology, so vital in both plant pathology and medicine, has become such a vast field that the Garden with its limited resources, could make but a small contribution to its advancement. Accordingly, during the spring, the fungus herbarium was sold to the United States Government to be incorporated in the National Fungus Collections at Beltsville, Maryland. The removal of this collection provided the opportunity for a reassignment of space for the other collections. After a complete survey, these were shifted to equalize spacing and to segregate certain groups (lichens, ferns, grasses) in places more convenient to the staff members immediately interested in them. This rearrangement also made possible the removal of several herbarium cases to other locations, thus providing space in the more crowded parts of the herbarium for additional work tables. During the summer Dr. Emanuel Rudolph of Wellesley College was employed for a period of three weeks to curate the moss collection which had been stored in tin boxes on top of the regular herbarium cases. The mosses were replaced in standard cabinets and are now easily accessible for study.

ATTENDANCE

During the past few years attendance has been relatively low; a fact which may be attributed to a movement to the suburbs, or to more interest in television. We are trying to increase the attendance by improving the parts of the Garden that a visitor enjoys and by publicizing the attractions of the Garden. In 1956 we had some success. Attendance figures for the past four years are:

1953	207,998	1955	156,297
1954	215,045	1956	198,472

These figures represent only those for people who enter through the main gate turnstiles. Increasing numbers of people are entering through the Cleveland Avenue entrance, especially on weekends, to visit the Shaw House and the Mausoleum area.

We have been helped by many people in our effort to let the public know what the Garden is doing. A large part of the work has been done by members of the Women's Committee,

with publicity releases managed by Mr. and Mrs. Rollo Horwitz. The volunteer guides, under the leadership of Mrs. Paul Britt, conducted 76 special groups of visitors through the Garden. Members of our staff and the Horticultural Council have lectured to many societies and given information to amateur gardeners. Following are some special shows and organizations that have helped to sustain public interest in the Garden.

The Cactus and Succulent Show managed by the Henry Shaw Cactus and Succulent Society has been given since 1942 and the 1956 show was one of their best.

The Dahlia Show, given since 1950, is growing each year.

The Fall Harvest Show, first given in 1954, was excellent and the men responsible for the staging of this big event expect the 1957 Harvest Show to be an outstanding one.

The Gladiolus Show had many more flowers exhibited in 1956 than in the first show in 1955, and there was a large number of new varieties as well as old standbys such as White Gold and Picardy.

The African Violet Show, first given in 1955, attracted a large crowd. A series of newspaper articles on African Violets with a feature article about Mrs. Tretter, one of the most active of the African Violet Society members, brought many new visitors to the Garden.

The St. Louis Chysanthemum Society maintained a large display on the balcony of the Display House during the Chrysanthemum Show. The quality of the many kinds of flowers, together with the fact that many of these were grown by busy men in their spare time aroused much interest. The 1956 display was their second one.

Many meetings were held in the Garden. On one day, for instance, there were four meetings at the Garden going on at the same time—in the Museum, the Greenhouse classroom, the Shaw House, and under the pergola of the Italian Garden. Occasional meetings are held in the Display House and now that the balcony has been surfaced, this makes an excellent place for certain activities. The Marguerite Krueger Conservation Club held a luncheon there, overlooking the display, and called it "A Picnic in the Garden".

Friends of the Garden. The number of members has increased considerably as the result of the efforts of Mr. Towner Dean, Mr. Dudley French, the Women's Committee and many volunteer helpers. About 2,000 envelopes were addressed as a part of a campaign which brought in new members and told many people about the activities of the Garden.

The Women's Committee of Shaw's Garden has helped in so many events in the past year that only a few can be mentioned. "Henry Shaw's Christmas Party" was given in the Shaw House and the Museum and it, like "Christmas Adventure" the previous year, was a spectacle enjoyed by everyone who came. Unfortunately, the weather was bad during its scheduled opening and it was held over for another weekend; yet, in spite of the weather, more than $4,000 was raised.

Volunteers from the Women's Committee have helped in the library and in the gardens and greenhouses.

Evening showings of the Orchid and the Chrysanthemum Shows and a special showing of the Daffodils at Gray Summit were arranged for the Friends of the Garden by the Women's Committee.

The National Council of State Garden Clubs. The greatest of all developments in gardening has not been the discovery of weed-killers or new plants but rather the emergence of the amateur gardener and of organized garden clubs. The Garden has been fortunate in having the National Council of State Garden Clubs decide to establish their national headquarters in St. Louis and within the Garden on land which the court permitted the Garden to sell for that purpose. The funds for the purchase of the land were a gift from interested St. Louisans. In August, 1956, there were 10,893 clubs and 352,882 members in the National Council, the largest of organized gardening groups. Plans have been drawn for the building and most of the funds collected for its erection which will start soon.

Bequests to the Missouri Botanical Garden may be made in securities, money, or books. They may, if desired, take the form of a memorial to a person, to be named by the giver.

Bequests to the Garden by will are deductible, without limit, in determining the federal estate tax and are exempt in any amount from Missouri and Illinois state inheritance taxes.

For those desirous of making bequests to the Missouri Botanical Garden, the following form is suggested:

I do hereby give and bequeath to the Trustees of the Missouri Botanical Garden of the City of St. Louis, State of Missouri:

_____

_____

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Ladislaus Cutak.....Horticulturist and Greenhouse Superintendent
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George B. Van Schaack.....Acting Curator of Herbarium
Trifon von Schrenk.....Associate Curator of the Museum
Robert E. Woodson, Jr.....Senior Taxonomist

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SOME FACTS ABOUT SHAW'S GARDEN

The Missouri Botanical Garden (the official name chosen by Mr. Shaw) carries on the garden established by Henry Shaw over a century ago at TOWER GROVE, his country home. It is a private institution and has no support from city or state. The old stone walls and cast-iron fences, the Linnaean House, the Museum, the Mausoleum, and the TOWER GROVE mansion all date from Mr. Shaw's time. Since his death, as directed in his will, the Garden has been in the hands of a Board of Trustees who appoint the Director.

The Garden is open every day in the year (except New Year's and Christmas) from nine A. M. until seven P. M. spring to fall and until six in the winter time though the greenhouses close at five. TOWER GROVE, itself, Mr. Shaw's old country home, is open from one until four, admission twenty-five cents, with special guides. The Garden is nearly a mile long and has several entrances. The Main Entrance, the one most used by the general public, is at Tower Grove and Flora Place on the Sarah bus line (No. 42). The Park Southhampton buses (No. 80), direct from downtown, pass within three blocks of this entrance and stop directly across the street from the Administration Building at 2315 Tower Grove Avenue. The latter is the best entrance for students, visiting scientists, etc. It is open to such visitors after 8:30 A. M., but is closed on Saturdays, Sundays, and holidays. The step-in gate (more or less concealed by the big Cleveland Ave. gate, 2221 Tower Grove) is nearly always open, and there is a service entrance on Alfred Avenue, one block south of Shaw Avenue.

Since Mr. Shaw's time an Arboretum has been developed at Gray Summit, Mo., adjacent to State Highways 50 and 66. It is open every day in the year and has auto roads as well as foot trails through the wild-flower reservation. There is a pinetum and an extensive display of daffodils and other narcissi which are at their best in April.

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